

## Message Text

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ACTION OES-07

INFO OCT-01 EUR-12 ISO-00 ACDA-10 CIAE-00 INR-07 IO-14  
L-03 NSAE-00 NSC-05 EB-08 NRC-07 FEAE-00 DODE-00  
SS-15 SP-02 PM-05 /096 W  
-----034559 241554Z /43

R 241518Z AUG 77  
FM AMEMBASSY PARIS  
TO SECSTATE WASHDC 7548  
INFO ERDA WASHDC  
ERDA GERMANTOWN MD

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ERDA WASHDC FOR AIA/HELFRICH; ERDA GERMANTOWN FOR  
ANE/BECKJORD

E.O. 11652: N/A  
TAGS: TECH, ENGR, FR, US  
SUBJECT: ERDA/CEA LMFBR SAFETY PROGRAM COOPERATION

BELOW, TRANSMITTED FOR THE RECORD, ARE LAST MAY'S  
RECOMMENDATIONS FOR JOINT ERDA/CEA SAFETY IMPLEMENTA-  
TION PROGRAM. THESE RESULTED FROM THE INITIAL ERDA/  
CEA STAFF DISCUSSIONS WITHIN THE FRAMEWORK OF THE  
US/FRANCE LIMITED LMFBR AGREEMENT OF COOPERATION  
WHICH TOOK PLACE LAST SPRING. THEY ARE SUBJECT TO

APPROVAL AT THE FIRST JOINT LMFBR AGREEMENT COORDINA-  
TING COMMITTEE MEETING EXPECTED TO TAKE PLACE THIS  
FALL.

QUOTE. THE ERDA AND CEA SAFETY WORKING GROUP  
MEMBERS AGREED THAT THE MEETINGS IN FRANCE AND THE  
U.S. HAVE BEEN CONDUCTED IN AN ATMOSPHERE AND SPIRIT  
OF FULL COOPERATION AND HAVE BEEN PRODUCTIVE. THE  
PARTICIPANTS ALSO AGREED THAT EARLY COOPERATIVE EFFORTS  
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SHOULD BE FOCUSED ON AREAS WHERE COMMON LIMITED  
OBJECTIVES COULD BE OBTAINED WITHOUT UNDULY TAXING  
EITHER PARTICIPANT'S RESOURCES. FOUR SUCH AREAS WERE  
IDENTIFIED FOR SPECIFIC COOPERATIVE PROGRAMS. THE  
SCHEDULE OF EFFORTS FOR AREAS I AND II IS PRESENTED  
IN APPENDIX A.

I. EXCHANGE OF PHYSICAL PROPERTIES DATA FOR USE  
IN SAFETY ANALYSES WITH THE OBJECTIVE OF  
ARRIVING AT A COMMON SET OF DATA AND UNDER-  
STANDING VALUES USED BY BOTH SIDES.

II. SODIUM BEHAVIOR - THE FOLLOWING JOINT PROGRAMS  
IN UNDERSTANDING SODIUM BEHAVIOR UNDER LMFBR  
ACCIDENT CONDITIONS WILL BE DEVELOPED. USE  
OF OUT-OF-PILE AND IN-PILE FACILITIES WILL BE  
CONSIDERED INCLUDING TREAT, CABRI, SLSF, AND  
SCARABEE.  
A. DEVELOPMENT OF A JOINT PROGRAM TO ESTAB-  
LISH UNDERSTANDING OF LOCAL FAULT ACCOM-  
MODATION UNDER LMFBR ACCIDENT CONDITIONS  
B. DEVELOPMENT OF A JOINT PROGRAM TO ESTAB-  
LISH UNDERSTANDING OF LOSS OF FLOW VOID-  
ING DEVELOPMENT AND RATE OF GROWTH  
C. DEVELOPMENT OF A JOINT PROGRAM TO ESTAB-  
LISH UNDERSTANDING OF SODIUM BOILING  
DURING LOW REACTOR POWER AND LOW COOLANT  
FLOW CONDITIONS IN AN LMFBR

III. DEVELOPMENT OF A JOINT PROGRAM BETWEEN TREAT  
AND CABRI TO CONTRIBUTE TO AN UNDERSTANDING

OF TIME AND LOCATION OF FAILURE AND SUBSE-  
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QUENT FUEL MOTIONS REQUIRED FOR DEMONSTRATING  
TERMINATION OF ACCIDENTS WITH LIMITED CORE  
DAMAGE - OCTOBER 1977.

IV. EXCHANGE OF INFORMATION IN SAFETY AREAS  
LISTED IN THE ERDA/CEA AGREEMENT PLUS POST-  
ACCIDENT HEAT REMOVAL AND STRUCTURAL DYNAMICS.  
INFORMATION ON STATUS OF U.S. IN-VESSEL DE-  
BRIS ACCOMMODATION EFFORTS WAS REQUESTED  
BY CEA AS A HIGH PRIORITY ITEM.

IN EACH OF THE IDENTIFIED COOPERATIVE AREAS, ERDA  
AND CEA WILL DEVELOP A JOINT ERDA/CEA STATUS OF TECH-  
NOLOGY REPORT.

S/ J.D. GRIFFITH FOR U.S. ERDA; A.P. SCHMITT, FOR CEA,  
AND F. PENET FOR CEA.

MAY 12, 1977.

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FM AMEMBASSY PARIS

TO SECSTATE WASHDC 7549

INFO ERDA WASHDC

ERDA GERMANTOWN MD

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#### APPENDIX A.

#### SCHEDULE OF EFFORTS FOR JOINT ERDA/CEA FAST REACTOR SAFETY PROGRAMS

#### I. DEVELOPMENT OF PROGRAM TO DEVELOP COMMON SET OF MATERIALS PROPERTIES FOR USE IN SAFETY ANALYSIS

THE JOINT PROGRAM WILL BE STRUCTURED TO IMPLEMENT  
THE FOLLOWING LOGIC:

- L. IDENTIFY MATERIALS PROPERTIES USED IN  
ANALYSES.
  2. DETERMINE REQUIRED ACCURACY AND PRECISION  
FOR EACH MATERIAL PROPERTY.
  3. COMPARE ITEMS 1 AND 2 TO IDENTIFY THOSE  
PROPERTIES VALUES THAT DO NOT  
MEET ACCURACY AND PRECISION REQUIREMENTS.
  4. DETERMINE PRIORITY OF EACH PROPERTY THAT
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REQUIRES ADDITIONAL WORK AS IDENTIFIED  
IN ITEM 3.

5. DEVELOP JOINT PROGRAM AND SCHEDULE.

THE SCHEDULE OF EFFORTS IS:

- A. ERDA AND CEA WOULD EXCHANGE HANDBOOKS OF MATERIALS PROPERTIES USED IN SAFETY ANALYSIS PERFORMED BY EACH PROGRAM - SEPTEMBER 1977
- B. ERDA AND CEA REVIEW EACH HANDBOOK TO IDENTIFY DIFFERENCES IN MATERIAL PROPERTIES BEING USED - DECEMBER 1977
- C. ERDA AND CEA EXCHANGE PROPOSALS FOR PROGRAM TO DEVELOP COMMON SET OF MATERIALS PROPERTIES FOR USE IN LMFBR SAFETY ANALYSIS - JANUARY 1978
- D. ERDA/CEA MEETING TO FINALIZE DETAILS OF JOINT PROGRAM TO DEVELOP COMMON SET OF MATERIAL PROPERTIES - MARCH 1978.

II. SODIUM BEHAVIOR

- A. DEVELOPMENT OF A JOINT PROGRAM TO ESTABLISH UNDERSTANDING OF LOCAL FAULT ACCOMMODATION UNDER LMFBR ACCIDENT CONDITIONS
  - 1. ERDA AND CEA EXCHANGE STATE OF ART REPORTS - DECEMBER 1977.
  - 2. ERDA AND CEA REVIEW AND COMMENT ON STATE OF ART REPORTS EXCHANGED IN ITEM 1 - MARCH 1978.

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- 3. ERDA/CEA MEETING TO FINALIZE DETAILS OF PROGRAM PLAN - SEPTEMBER 1978.
- B. DEVELOPMENT OF A JOINT PROGRAM TO ESTABLISH UNDERSTANDING OF LOSS OF FLOW VOIDING DEVELOPMENT AND RATE OF GROWTH.
  - 1. ERDA AND CEA EXCHANGE STATE OF ART REPORTS - MARCH 1978.
  - 2. ERDA AND CEA REVIEW AND COMMENT ON STATE OF ART REPORTS EXCHANGED IN ITEM 1 - JUNE 1978.
  - 3. ERDA/CEA MEETING TO FINALIZE DETAILS OF PROGRAM PLAN - SEPTEMBER 1978.
- C. DEVELOPMENT OF A JOINT PROGRAM TO ESTABLISH UNDERSTANDING OF SODIUM BOILING DURING LOW REACTOR POWER AND LOW COOLANT FLOW CONDITIONS

IN AN LMFB.

1. ERDA AND CEA EXCHANGE STATE OF ART REPORTS - JUNE 1978.
2. ERDA AND CEA REVIEW AND COMMENT ON STATE OF ART REPORTS EXCHANGED IN ITEM 1 - SEPTEMBER 1978.
3. ERDA/CEA MEETING TO FINALIZE DETAILS OF PROGRAM PLAN - MARCH 1979.

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R 241518Z AUG 77  
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#### JOINT RECOMMENDATIONS FOR TREAT/CABRI EXCHANGE

1. THE TREAT/CABRI EXCHANGE SHOULD BE HANDLED AS A SPECIAL CASE WITHIN THE ERDA/CEA AND ERDA/BMFT BILATERAL EXCHANGES. TREAT DATA WOULD BE TRANSMITTED AS PART OF BILATERAL AGREEMENTS. CEA AND GFK (ACTING AS AGENT FOR BMFT) WOULD ARRANGE A PROTOCOL WHICH WOULD PERMIT ERDA TO DEAL DIRECTLY WITH THE CHAIRMAN OF THE JOINT CEA/GFK CABRI PROJECT TO ACQUIRE CABRI DATA. ERDA WOULD PROVIDE AN OBSERVER AT THE MEETINGS OF THE CABRI COMMITTEE BUT DIRECTION OF CABRI WORK WOULD COME FROM CEA AND GFK BASED ON AGREEMENTS WITH ERDA WHICH WOULD BE ARRIVED AT DURING HIGHER LEVEL BILATERAL NEGOTIATIONS

DIRECTED AT ACHIEVING AGREED OBJECTIVES.

2. ERDA AND CEA/GFK SHOULD ASSIGN A REPRESENTATIVE AT CABRI AND TREAT RESPECTIVELY TO PERFORM LIAISON AND COORDINATION OF TECHNICAL EFFORTS.

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3. ERDA IS INVITED TO REVIEW AND COMMENT ON THE CABRI TEST PROGRAM DESCRIBED BY THE CABRI PROJECT AT THE ERDA/CABRI MEETING ON APRIL 21 AND 22, 1977 AT CADARACHE. THE ERDA REVIEW AND COMMENTS WILL INCLUDE A PROPOSED TREAT TEST PROGRAM WITH THE INTENT TO REACH A MUTUALLY AGREED TO TREAT/CABRI PROGRAM. THE INITIAL ERDA PROPOSAL FOR A TREAT/CABRI PROGRAM WILL CONSIDER A POTENTIAL ERDA/UKAEA SAFETY TEST AGREEMENT INVOLVING PFR AND TREAT/SLSF. THE ERDA EFFORTS SHOULD BE COMPLETED BY SEPTEMBER 1, 1977. AN ERDA/CABRI MEETING TO DEVELOP PROGRAM DETAILS SHOULD BE HELD IN OCTOBER, 1977.

4. ERDA INVITED ALL OF THE MEMBERS OF THE CABRI PROJECT TO PARTICIPATE IN INTERNATIONAL BENCHMARK SAFETY TESTS. ERDA SUGGESTED THAT THE INITIAL TEST BE THE PINEX-2 EXPERIMENT TO BE CONDUCTED BY ERDA IN

TREAT IN NOVEMBER, 1977. THE CABRI PROJECT MEMBERS AGREED TO CONSIDER THIS INVITATION. ERDA WILL PROVIDE BY JUNE 10, 1977 ALL THE NECESSARY DATA FOR THE PROPOSAL.

5. IT WAS AGREED THAT THE INITIAL PROGRAM PROPOSALS SHOULD BE AIMED AT THE ISSUE OF TIME AND LOCATION OF FAILURES DURING ACCIDENTS. IT WAS ALSO AGREED THAT INFORMATION EXCHANGED SHOULD BE INITIATED.

SIGNED/J.D. GRIFFITH FOR U.S. ERDA; A.P. SCHMITT FOR CEA, AND G. HEUSENER FOR GFK.

MAY 10, 1977. UNQUOTE.

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## Message Attributes

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